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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,363	09/25/2003	Charles B. Kendall	GEMS 0221 PA	2362
27256	7590	03/10/2005	EXAMINER	
ARTZ & ARTZ, P.C. 28333 TELEGRAPH RD. SUITE 250 SOUTHFIELD, MI 48034			SONG, HOON K	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/605,363	KENDALL, CHARLES B.	
	Examiner	Art Unit	
	Hoon Song	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 4 is objected to because of the following informalities:

In claim 4 on line 1-2, "a frame" should read --said imaging tube frame--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 and 11-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Janouin et al. (US 4995065)

Regarding claim 1, Janouin teaches an energy-absorbing device (16, 17) for an imaging tube having a housing (2, 8), said device comprising an energy-absorbing body (17) mechanically coupled to said housing (8) and adapted to absorb kinetic energy directed at said housing (2, 8) and generated from the radial release of at least one material fragment (since Janouin's anode target and applicant's target are considered as same, Janouin's anode target will generate target fragment which will cause kinetic energy wave) within the imaging tube (figure 1, column 3 line 20-21, since substance casting, 16, 17 is positioned in radial direction of a rotating target, the casting is considered as kinetic energy absorbing device).

Regarding claim 2, Janouin teaches said energy-absorbing body (16, 17) is directly coupled to said housing (2, 8) and receives kinetic energy generated from the radial release of said at least one material fragment from a rotating anode.

Regarding claim 3, Janouin teaches an imaging tube comprising;

a housing (8);

a rotating target (5) coupled within said housing (8) and generating at least one energy wave (heat energy); and

at least one energy-absorbing device (16, 17) mechanically coupled to said housing (8), separated from an imaging tube frame (3) and proximate said rotating target (5), said at least one energy-absorbing device adapted to absorb energy within said at least one energy wave (figure 1, column 3 line 20-21, since the substance casting, 16, 17 will absorb heat energy).

Regarding claim 4, Janouin teaches said imaging tube frame (3) coupled between said rotating target (5) and said housing (8) and containing at least a portion of said at least one energy wave (heat energy), said at least one energy-absorbing device absorbing energy within said portion

Regarding claim 5, Janouin teaches a cooling material (16) containing at least a portion of said at least one energy wave, said at least one energy-absorbing device absorbing energy (column 3 line 29-30).

Regarding claim 6, Janouin teaches said at least one energy-absorbing device (16) is within said housing (2, 8) (column 3 line 29-30).

Regarding claim 7, Janouin teaches said at least one energy-absorbing device (16, 17) is mechanically coupled to said housing (2, 8) and between said rotating target (5) and said housing (8).

Regarding claim 8, Janouin teaches said at least one energy-absorbing device (16, 17) is toroidal in shape (figure 1).

Regarding claim 9, Janouin teaches said at least one energy-absorbing device (16, 17) is directly coupled to an inner surface of said housing (8).

Regarding claim 11, Janouin teaches said at least one energy-absorbing device is oriented to receive said at least one energy wave generated from the separation of material fragments from said rotating target (figure 1, column 3 line 20-21, since substance casting, 16, 17 is positioned in radial direction of a rotating target, the casting having substance is also considered as kinetic energy absorbing device).

Regarding claim 12, Janouin teaches said at least one energy-absorbing device is oriented to receive energy waves emitted within an emission range that is approximately a $\pm 30^\circ$ span from a perpendicular axis, which extends perpendicular to a center axis of rotation of said rotating anode (figure 1).

Regarding claim 13, Janouin teaches said at least one energy-absorbing device is coupled to said housing using at least one technique selected from bonding (column 3 line 21)

Regarding claim 14, Janouin teaches at least one energy-absorbing device coupler is integrally formed as part of the housing (fastening support, column 3 line 26)

Regarding claim 15, Janouin teaches said at least one energy-absorbing device coupler is a coupler selected from at least one of a bracket, a fastener, and a cover (column 3 line 26).

Regarding claim 16, Janouin teaches said at least one device coupler is integrally formed as energy-absorbing part of the housing (fastening support, column 3 line 26).

Regarding claim 17, Janouin teaches said at least one energy-absorbing device comprises an outer skin (figure 1).

Regarding claim 18, Janouin teaches said at least one energy-absorbing device stabilizes and reduces pressure exertions on said housing (since the casting is positioned in radial direction of a rotating target, the casting having substance is considered to absorb pressure exertion of rotating anode).

Regarding claim 19, Janouin teaches said at least one energy-absorbing device comprises an X-ray opening (figure 1).

Regarding claim 20, Janouin teaches an imaging system having an imaging tube comprising;

- a housing (8, 2);

- a rotating target (5) coupled within said housing (8, 2) and generating at least one kinetic energy wave from the radial release of at least one material fragment within said housing (since Janouin's anode target and applicant's target are considered as same, Janouin's anode target will generate target fragments which will cause kinetic energy wave); and

at least one energy-absorbing device (16, 17) mechanically coupled to said housing (8, 2), proximate said rotating target (5), and absorbing energy within said at least one kinetic energy wave, which is directed at said housing (figure 1, column 3 line 20-21, since the substance casting, 16, 17 is positioned in radial direction of a rotating target, the casting is considered as kinetic energy absorbing device).

Regarding claim 21, Janouin said energy absorbing device (16, 17) is directly coupled to said housing (8, 2) and receives kinetic energy passed through a fluid (column 3 line 6) between said energy absorbing device (16, 17) and a rotating target (5) and generated from the radial release of said at least one material fragment from said rotating target (5).

Regarding claim 22, Janouin said energy absorbing device is adapted to absorb pressure exertions on said housing (since the casting is positioned in radial direction of a rotating target, the casting having substance is considered to absorb pressure exertion).

Regarding claim 23, Janouin a method of absorbing kinetic energy within an image tube having a housing comprising:

radially releasing at least one material fragment (since Janouin's anode target and applicant's target are considered as same, Janouin's anode target will generate target fragment which will cause kinetic energy wave);

mechanically coupling an energy absorbing body (16, 17) to the housing (column 3 line 20-21);

orienting said energy absorbing body to receive said at least one material fragment (figure 1); and

absorbing kinetic energy directed at the housing in response to reception of said at least one material fragment (figure 1, column 3 line 20-21, since the casting is positioned in radial direction of a rotating target, the casting having substance is considered as kinetic energy absorbing device).

Regarding claim 24, receiving said kinetic energy passed through a fluid (column 3 line 6) between said energy absorbing body (16, 17) and a rotating target (5) and generated from the radial release of said at least one material fragment from said rotating target.

Regarding claim 25, absorb pressure exertions on said housing via said energy absorbing body (since the casting is positioned in radial direction of a rotating target, the casting having substance is considered to absorb pressure exertion).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Takenaka et al. (US 6487273 B1).

Regarding claim 3, Takenaka teaches an imaging tube comprising;
a housing (52);
a rotating target (18) coupled within said housing (52) and generating at least one energy wave (acoustic energy); and
at least one energy-absorbing device (sound insulating form, column 9 line 27-30) mechanically (coated) coupled to said housing (52), separated from an imaging tube frame (14) and proximate said rotating target (18), said at least one energy-absorbing device adapted to absorb energy within said at least one energy wave (figure 1, the sound insulating form will absorb acoustic energy wave).

Regarding claim 10, Takenaka teaches said at least one energy-absorbing device is formed of a material selected from at least one of a foam (column 9 line 27-30).

Response to Arguments

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoon Song whose telephone number is (571) 272-2494. The examiner can normally be reached on 8:30 AM - 5 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272 - 2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HKS 7/31/05
HKS


EDWARD S. GLICK
SUPERVISOR/CONTENT EXAMINER